UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/912,433	07/25/2001	Paul W. Lyons	SAR 13940	4855

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EXAMINER
MANNING, JOHN

ART UNIT	PAPER NUMBER
2614	

DATE MAILED: 12/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/912,433	LYONS ET AL.
	Examiner	Art Unit	
	John Manning	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *2/12/02*.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1.   Claims 1, 12, 15 and 18 are objected to because of the following informalities:

there is insufficient antecedent basis for the recited limitations "the compressed

commercial" and "the number of pictures".

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3.   Claims 1-4, 7-12, 15-16 and 18 are rejected under 35 U.S.C. 102(e) as being

anticipated by Tahara et al. (US Pat App Pub No 2002/0080875).

In regard to claims 1, 12, 15 and 18, Tahara discloses a method and apparatus

for seamlessly splicing two encoded video streams. The claimed step of "manipulating

the commercial slot vbv-delay between one of a minimum delay and a maximum delay"

is met by Figures 4A-4C and 21A-21C. "In order to prevent discontinuity of the locus of

the data occupancy quantity in the VBV buffer around the splicing point SP of the

spliced stream ST_SPL, the initial level of the data occupancy quantity of the substitute

stream ST_NEW of the spliced stream ST_SPL in the VBV buffer must be that of the

data occupancy quantity VBV_OLD in the VBV buffer. As a result, as shown in FIGS.

4A to 4C, if the value of the data occupancy quantity VBV_NEW of the substitute stream

ST_NEW in the VBV buffer is smaller than the value of the data occupancy quantity

VBV_OLD of the original stream ST_OLD in the VBV buffer, the VBV buffer will overflow

at the part of the substitute stream ST_NEW of the spliced stream ST_SPL. Further, if

the value of the data occupancy quantity VBV_NEW of the substitute stream ST_NEW

in the VBV buffer is greater than the value of the data occupancy quantity VBV_OLD of

the original stream ST_OLD in the VBV buffer, the VBV buffer will underflow at the part

of the substitute stream ST_NEW of the spliced stream ST_SPL" (Paragraph 0021). "In

order to realize the above objectives, a system for seamlessly splicing two encoded

video streams is provided. In one implementation of the system, one or more coding

parameters are extracted from the first and/or second encoded streams and one or

more parameters of the first and/or second encoded streams are changed in

accordance with the extracted parameter(s) in order to effectuate seamless splicing. In

another implementation, the coding parameters applied to the first encoded stream are

referenced when encoding the second stream such that the resulting second encoded

stream can be seamlessly spliced with the first encoded stream" (Paragraph 0043).

"The stream processor 503 is a circuit for changing the coding parameters, the data

elements and the flags of the stream ST.sub.OLD and the stream ST.sub.NEW so that

a spliced stream ST.sub.SPL generated by splicing the stream ST.sub.OLD and the

stream ST.sub.NEW becomes a seamless stream. Specific processing carried out by

the stream processor 503 will now be described with reference to FIGS. 21A to 21B"

(Paragraph 0189). "First, if the splice controller 500 has determined that value VD(I6) of

vbv_delay of the picture I6 of the original stream ST.sub.OLD and the value VD(I6') of

vbv_delay of the picture I6' of the substitute stream ST.sub.NEW at the splicing point

SP1 are different from each other, the splice controller 500 instructs the stream

processor 503 to rewrite the value of vbv_delay of the picture I6' described in the

substitute stream ST.sub.NEW from VD(I6') to VD(I6)" (Paragraph 0196). The claimed

step of "outputting pictures from the compressed commercial slot for at least a portion of

the network time slot duration" is met by Figure 2A. "FIGS. 2A to 2C illustrate editing

processing at each local station. FIG. 2A shows an original television program

PG.sub.OLD produced at the key station. FIG. 2B shows a substitute television program

PG.sub.NEW for local viewers produced at a local station. FIG. 2C shows a television

program PG.sub.EDIT edited at a local station. The example of editing processing

shown in FIGS. 2A to 2C is an example of editing processing for replacing a commercial

CM1, a program 3 and a commercial CM3 of the original television programs

transmitted from the key station with a commercial CM1', a program 3' and a

commercial CM3' produced at the local station for local viewers. As a result of this

editing processing at the local station, television programs for local viewers are

produced in which the television programs produced at the key station (that is, a

program 1, a program 2, a CM2 and a program 4) and the television programs produced

at the local station (that is, the commercial CM1', the program 3' and the CM3') coexist."

(Paragraph 0004) The claimed step of "determining the number of pictures remaining

from one of a stored portion of the incoming network feed and the commercial slot and

adjusting the output rate as required to output the commercial slot" is met by the MPEG

encoder block 35 of Figure 7. "The MPEG encoder block 35 carries out control of

statistical multiplexing for dynamically changing the transmission rate of the

transmission program of each channel in accordance with the pattern of video data to

be coded. According to this statistical multiplexing technique, in the case where the

pattern of a first picture of a transmission program of a channel is relatively simple and

requires only a small number of bits for coding while the pattern of a second picture of

another program is relatively complicated and requires a large number of bits for coding,

bits for coding the first picture of the one channel are allocated to bits for coding the

second picture of the other channel, thereby realizing efficient use of the transmission

link. The method for dynamically changing the coding rate of each video encoder will be

briefly described hereinafter" (Paragraph 0095). The claimed step of "adjusting one of

the vbv-delay of stored network feed and the vbv delay of the local commercial slot to

match the vbv-delay of the incoming network feed." is met by Figures 4A-4C and 21A-

21C (See Paragraph 0021).

In regard to claim 2, as discussed above, if the vbv_delay of the spliced segment

needs to be the same as the vbv_delay of the original programming for a seamless

splice. The vbv_delay of the spliced segment is accordingly adjusted to achieve a

seamless splice. If the vbv_delay of the original programming is at the maximum delay,

the vbv_delay of the spliced segment will be adjusted to a maximum delay.

In regard to claims 3 and 8, the spliced segment is out for viewing.

In regard to claim 4, the claimed step of "outputting any remaining pictures from the commercial slot by, storing at least a portion of the incoming network feed, outputting the remaining pictures at an increased output rate and then outputting the stored portion of the network feed and adjusting network time slot vbv_delay until the vbv_delay of stored network feed matches the vbv_delay of the incoming network feed" is met by is met by Figures 4A-4C and 21A-21C (See Paragraph 0021).

In regard to claims 7, 10 and 16 as discussed above, if the vbv_delay of the spliced segment needs to be the same as the vbv_delay of the original programming for a seamless splice. The vbv_delay of the spliced segment is accordingly adjusted to achieve a seamless splice. If the vbv_delay of the original programming is at the minimum delay, the vbv_delay of the spliced segment will be adjusted to a minimum delay. Where 30-second commercial slots are commonly 29.5 seconds.

In regard to claim 9, the claimed step of "determining the number of pictures remaining from the commercial slot and adjusting the output rate as required to complete the network time slot duration, and adjusting the local commercial slot vbv_delay to match the vbv_delay of the incoming network feed" is met by is met by Figures 4A-4C and 21A-21C (See Paragraph 0021).

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 5-6, 11, 13-14 and 17 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Tahara et al.

In regard to claims 5 and 13, 30-second commercial slots are commonly 29.5

seconds. Given a vbv_buffer with a maximum of 0.5 seconds and both a slice in and

slice out point, the maximum duration would be 30.5 second. The reference however,

fails to disclose a vbv_buffer with a maximum. The examiner takes Official Notice that it

is notoriously well known in the art to have a vbv_buffer with a maximum of 0.5 seconds

so as to conform to the ATSC standard. Consequently, it would have been obvious to

one of ordinary skill in the art to modify the reference with a vbv_buffer with a maximum

of 0.5 seconds for the stated advantage.

In regard to claims 6 and 14, the reference discloses using Decode Time Stamps

for determining the duration of the slot. The reference fails to disclose the use of a time

tolerance. The examiner takes Official Notice that it is notoriously well known in the art

to utilize a time tolerance so as to be able to explicitly quantify the operational

parameters of a system. Consequently, it would have been obvious to one of ordinary

skill in the art to modify the reference with a time tolerance for the stated advantage.

In regard to claims 11 and 17, when 29 seconds of a 29.5 second commercial

have been outputted, it is inherent that 15 pictures would remain in the buffer. The

reference fails to disclose the use of a time tolerance. The examiner takes Official

Notice that it is notoriously well known in the art to utilize a time tolerance so as to be

able to explicitly quantify the operational parameters of a system. Consequently, it

would have been obvious to one of ordinary skill in the art to modify the reference with a

time tolerance for the stated advantage.

Conclusion

6.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure as follows:

> Bock et al (US Pat No 6,370,199)
>
> Wine et al (US Pat No 6,137,834)
>
> Yamato et al. (US Pat No 6,345,122)
>
> Chen et al. (US Pat No 5,917,830)
>
> Perkins et al. (US Pat No 5,859,660)
>
> Hurst et al. (US Pat No 6,038,000).

7.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to John Manning whose telephone number is 571-272-

7352. The examiner can normally be reached on M-F: 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John W. Miller can be reached on 571-272-7353. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

JM
December 5, 2005

JOHN MILLER
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